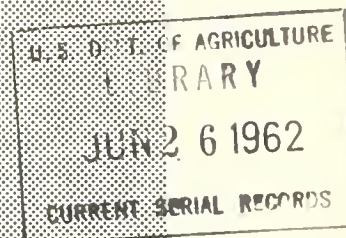


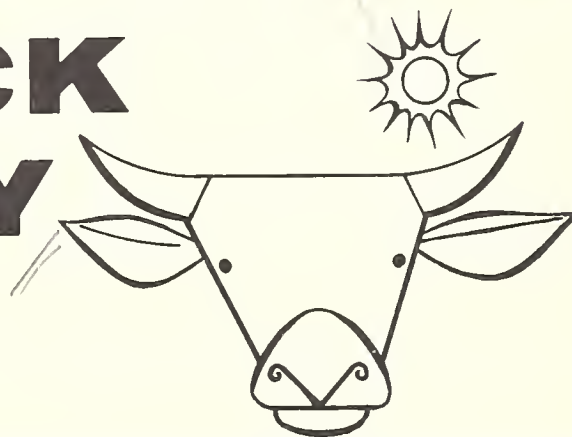
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**RECENT TRENDS
IN NEW ZEALAND'S
LIVESTOCK
INDUSTRY**



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✓ This publication brings up to date
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RECENT TRENDS IN NEW ZEALAND'S LIVESTOCK INDUSTRY

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SUMMARY

New Zealand is the world's largest exporter of meat and the second most important exporter of wool. Meat and other livestock products earn over 90 percent of the foreign exchange.

Meat production during 1962 is expected to reach an alltime high of 1.7 billion pounds. About 38 percent of the production consists of lamb, 33 percent of beef and veal, 23 percent of mutton, and the remainder of pork. Production is expected to continue to rise for the next few years.

New Zealand, with 49 million sheep, specializes in fat lamb production for the export. It is the world's largest producer of lamb. Approximately 95 percent of the production is shipped abroad, with over 90 percent going to the U. K. market.

Over 60 percent of the total meat production is marketed abroad, about three-fourths going to the United Kingdom. Less than 40 percent is required for domestic use, although per capita consumption averages among the highest in the world.

New Zealand was the second largest supplier of boneless manufacturing type beef to the United States in 1961, furnishing about one-fourth of the total imports. The United States was a market for about 90 percent of New Zealand's boneless beef exports and for almost 60 percent of the total beef and veal shipments.

The United States takes only limited quantities of New Zealand mutton because it generally has more fat than is wanted in manufacturing meat. In recent years, New Zealand has been able to sell large quantities of mutton to Japan and other Asian countries.

Sheep numbers and production of wool and lambs have increased steadily and there is considerable potential for expansion. Lamb slaughter reached a record 20.4 million head in 1961, a level which is expected to be maintained during 1962.

Beef cattle are usually run in conjunction with sheep. Their numbers, now at an all-time high, have increased gradually, a trend which is expected to continue as long as there is a good export market for boneless beef.

New Zealanders fear that their exports of fat lambs to the United Kingdom cannot be further increased and still remain profitable. They look instead to the United States as a growing market for their increased production. The prices at which frozen New Zealand lamb can be delivered to the United States are lower than those of U. S. chilled lamb. However, frozen lamb does not have the consumer acceptance of fresh lamb in the United States; moreover, throughout the years there has been a tendency for lamb consumption per person to decline. Exports to the United States, averaging less than 5 million pounds during 1960 and 1961, have been moderate in view of New Zealand's large exportable supplies and the low prices for frozen lamb. The New Zealand Meat Board's policy has been to prevent excessive shipments that would unduly depress domestic prices and would antagonize U. S. producers.

TABLE 1. —Export income: Amount and percent of total, by source 1959 and 1960

Commodity	1959		1960	
	Amount	Share of total	Amount	Share of total
Livestock and meat products:	Million dollars	Percent	Million dollars	Percent
Wool	251	31	286	34
Meat	204	25	218	26
Butter	156	19	140	17
Cheese	62	8	52	6
Sheep pelts and skins	24	3	18	2
Cattle hides and calf skins	13	2	10	1
Sausage casings	12	1	10	1
Tallow	9	1	8	1
Other livestock products	34	4	31	4
All other products	50	6	66	8
Total	815	100	839	100

Although New Zealand is a large source of U. S. wool imports, most are coarse duty-free carpet types. As little wool of these types is produced domestically, imports have little effect on the domestic wool industry.

New Zealand has increased its exports of tallow and greases, variety meats, cattle hides, and calf skins to many overseas markets that are supplied by the United States. As New Zealand's livestock output grows, even more competition will develop against U. S. exports of packinghouse products in world markets.

LIVESTOCK AND MEAT INDUSTRY

Importance

New Zealand's economy depends largely on agricultural production, especially on foreign markets for livestock products. Meat, wool, and dairy products are by far the most important products, and a large part of the population is employed in secondary industries that must be supported by agriculture. Raw materials and semifinished and finished goods must be imported with foreign exchange generated through farm export earnings.

In 1960, the livestock industry accounted for 92 percent of New Zealand's export income. Wool brought in 34 percent of the total, meat 26 percent, butter 17 percent, and cheese 6 percent.

Livestock Types

Sheep. —The production of sheep, lambs, and wool is New Zealand's chief industry and the economy of the country centers around it. Approximately 40 million acres of New Zealand's total area of 66 million are used for pastoral purposes, most of it for sheep.

In mid-1962, New Zealand, with a land area about the size of California, has around 49 million sheep — 56 percent more than the U. S. total. This is an alltime high, and 34 percent above the 1951-55 average. Breeding ewes account for 69 percent of total sheep numbers.

TABLE 2. —Sheep: Numbers by district, annual 1959-60 1/

District	1959	1960
	<u>1, 000 head</u>	<u>1, 000 head</u>
North Auckland	2, 188	2, 257
South Auckland.	6, 227	6, 399
Gisborne.	2, 309	2, 341
Hawkes Bay.	5, 695	5, 800
Tarawaki	1, 078	1, 082
Wellington.	8, 389	8, 385
Total North Island	25, 886	26, 264
Nelson	568	580
Marlborough	1, 251	1, 250
Westland	135	144
Canterbury	8, 003	7, 862
Otago	5, 654	5, 585
Southland	5, 379	5, 449
Total South Island.	20, 990	20, 870
Total New Zealand	46, 876	47, 134

1/ As of June 30.

Sheep are widely distributed over both the North and South Islands, but some of the high country in the South Island, covered with sparse native grasses and tussock, carries only 1 sheep to 10 acres. In extensive areas of the country, improved pastures carry 6 ewes or more to the acre.

In recent years, more than 90 percent of the lambs exported have been sired by South-down rams crossed with ewes of the Romney breed. The type of sheep produced and production practices in New Zealand are uniform despite the fact that the country spans a latitude of over 1,000 miles.

The fat-lamb industry is based on marketing a milk-fed lamb, averaging 30-35 pounds, carcass weight, at 4 to 8 months of age. In the mountainous sections of the South Island, some sheep of the Merino breed are raised, and here it is a practice to keep aged wethers for wool production. Lambs produced in these areas are either sold to fattening farms or are grown out as yearlings. Hence there is considerable yearling and wether mutton available.

The lambing percentage for the country as a whole is relatively high; it has not been below 94.3 during the past 10 years and, during the spring of 1958 (September-December) was over 100 percent, an alltime high.

Most of New Zealand's wool production is of coarse types. About 72 percent of the sheep are Romneys, 2 percent Merinos, 6 percent halfbloods, 13 percent other crossbreds, 5 percent Corriedales, and 2 percent Southdowns.

Since 1920, there has been an almost steady annual increase in wool production. During this period, production more than doubled; it is now 38 percent above the 1951-55

average. This increase resulted from a general rise in sheep numbers, and a higher yield of wool per sheep shorn. Current production is about 600 million pounds — a new record — compared with around 325 million in the United States. New Zealand is the third largest wool producer in the world.

Dairy Cattle.—Dairying is New Zealand's second largest industry. Net returns from dairying are often higher than those obtained from sheep or cattle, especially on the smallest, most productive farms. Much of the milk produced is used in the manufacture of cheese and butter for export.

In 1960, New Zealand had 3 million dairy animals, 2 million of which were cows and heifers over 2 years old. About 90 percent of the dairy animals are in the North Island, where they can be grazed the year around with little preserved feed and no housing.

A typical farm has from 70 to 120 acres and carries 40 to 60 cows. Nearly all are milked by machine. Many of the calves are sold for slaughter soon after birth; some are raised on skim milk, meat meal, and cereal meal, with limited amounts of whole milk. Approximately 85 percent of the dairy cows are Jerseys.

TABLE 3.—Cattle: Numbers by type and district, annual 1959-60 ^{1/}

District	1959			1960		
	Beef cattle	Dairy cattle	Total	Beef cattle	Dairy cattle	Total
	<u>1,000 head</u>	<u>1,000 head</u>	<u>1,000 head</u>	<u>1,000 head</u>	<u>1,000 head</u>	<u>1,000 head</u>
North Auckland	301	680	981	327	674	1,001
South Auckland.	633	1,192	1,825	684	1,191	1,875
Gisborne.	336	61	397	337	57	394
Hawke's Bay	465	68	533	476	65	541
Taranaki.	77	391	468	77	402	479
Wellington.	660	328	988	652	322	974
Total North Island	2,472	2,720	5,192	2,553	2,711	5,264
Marlborough	51	20	71	45	18	63
Nelson	35	52	87	35	50	85
Westland.	32	24	56	31	23	54
Canterbury	167	101	268	150	89	239
Otago	105	42	147	103	37	140
Southland	107	45	152	102	45	147
Total South Island.	497	284	781	466	262	728
Total New Zealand	2,969	3,004	5,973	3,019	2,973	5,992

^{1/} As of January 31.

Beef Cattle.—About 85 percent of the beef cattle are also in the North Island. The number of farms keeping cattle in conjunction with sheep has increased significantly during the past 10 years. Some cattle are kept in areas where land is being cleared. Close grazing by cattle is one means of clearing fern and bracken from new land.

Beef cattle numbers have increased by 7 percent since 1955, and in 1960, totaled 3.0 million, of which about 1.1 million were steers and bulls for slaughter. More than two-thirds of the beef stock are of the Angus breed, and the remainder mostly Hereford and Shorthorn.

Nearly all of New Zealand is well adapted to beef cattle; more cattle would be produced if this operation were more profitable in comparison with dairying and sheep production. Beef cattle require more preserved winter feed than sheep. The provision of suitable watering places in the pastures is also a problem in raising cattle.

Hogs. —Hogs are raised mainly as a byproduct of the dairy industry. Dairy products, mostly skim milk and whey, provide about 80 percent of the hog rations. The 1962 hog population of 665,000 head was slightly above the previous year but 18 percent below the record peak of 1936.

The New Zealand Government and the New Zealand Pig Producer's Council are both encouraging hog production. However, it is likely to continue to be a minor farm enterprise.

Meat Industry

Livestock Slaughter and Meat Production. —Meat destined for export from New Zealand is slaughtered at special meat export slaughterhouses, of which 36 were in operation during the 1960 season. Licenses for slaughterhouses are issued annually under authority of the Meat Act of 1939, which also authorizes officers of the Department of Agriculture to make inspection of all meat, whether for export or local consumption. Export slaughterhouses handled 70 percent of the sheep slaughtered during 1960; 98 percent of the lambs, 74 percent of the cattle, and 96 percent of the calves.

TABLE 4. —Cattle and calves: Numbers and slaughter, average 1951-55, annual 1956-62

Year	Number on farms <u>1/</u>	Slaughter <u>2/</u>		
		Cattle	Calves	Total
Average:	<u>1,000 head</u>	<u>1,000 head</u>	<u>1,000 head</u>	<u>1,000 head</u>
1951-55.	5,468	753	1,325	2,078
Annual:				
1956.	5,600	1,000	1,406	2,406
1957.	5,809	1,048	1,407	2,455
1958.	5,886	1,107	1,314	2,421
1959.	5,973	963	1,222	2,185
1960.	5,992	956	1,235	2,191
1961 <u>3/</u>	6,040	1,000	1,400	2,400
1962 <u>3/</u>	6,060	1,020	1,350	2,370

1/ As of January 31.

2/ Year ending September 30.

3/ Preliminary estimate.

There were 40 abattoirs operating to supply the domestic meat requirements in the larger urban centers. In addition, the supply was augmented by meat from export slaughterhouses. For consumption in small country towns and rural districts, meat is produced in

TABLE 5. —Sheep and lambs: Numbers and slaughter, average 1951-55, annual 1956-62

Year	Number on farms <u>1/</u>	Slaughter <u>2/</u>		
		Sheep	Lambs	Total
Average:	Million head	Million head	Million head	Million head
1951-55.	36.7	5.4	12.7	18.1
Annual:				
1956.	40.3	5.9	14.8	20.7
1957.	42.4	5.3	14.3	19.6
1958.	46.0	5.1	15.9	21.0
1959.	46.9	7.4	18.4	25.8
1960.	47.1	7.3	19.3	26.6
1961 <u>3/</u>	48.5	6.5	20.4	26.9
1962 <u>3/</u>	49.0	7.0	20.4	27.4

1/ As of June 30.2/ Year ending September 30.3/ Preliminary estimate.

TABLE 6. —Meat: Production by type, carcass weight, average 1951-55, annual 1956-62

Year <u>1/</u>	Beef	Veal	Mutton	Lamb	Pork	Total carcass meats	Variety meats
Average:	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds
1951-55.	391	46	303	435	88	1,263	44
Annual:							
1956.	530	56	316	472	90	1,464	64
1957.	538	59	282	470	83	1,432	69
1958.	549	52	272	518	85	1,476	64
1959.	478	51	377	572	98	1,576	74
1960.	480	53	381	609	89	1,612	83
1961.	475	55	377	630	87	1,624	74
1962 <u>2/</u>	497	54	381	633	90	1,655	80

1/ Year ending September 30.2/ Preliminary estimate.

rural slaughterhouses. Many farmers, particularly on sheep farms, slaughter animals for their own consumption.

Cattle slaughter reached an alltime high of 1.1 million head for the year ending September 30, 1958, an increase of 85 percent over the prewar (1936-40) average. It dropped sharply in 1959 and 1960, but the 1962 estimate of 1.0 million head indicates a recovery to approximately the previous level. Calf slaughter, estimated at 1.4 million head for 1962, has not changed significantly in the last 10 years. Most of the calves come from dairy herds and are slaughtered when only a few days old. Meat from these calves is known as "bobby veal".

TABLE 7. —Livestock products: Production by type, average 1951-55, annual 1956-62

Year	Tallow and greases <u>1/</u>	Sheep and lamb skins <u>1/</u>	Cattle and calf hides and skins <u>1/</u>	Wool <u>2/</u>
	Million pounds	Million pounds	Million pounds	Million pounds
Average: 1951-55.	103	49	45	434
Annual:				
1956.	122	56	52	490
1957.	130	53	53	496
1958.	152	57	52	530
1959.	160	70	47	540
1960.	161	72	47	577
1961.	165	73	52	580
1962 <u>3/</u>	165	74	51	599

1/ Year ending September 30.

2/ Year ending June 30.

3/ Preliminary estimate.

Lamb marketings reached a record high of 20.4 million head in 1961, an increase of 60 percent over the 1951-55 average. This level of slaughtering is expected to be maintained during the 1962 season. Sheep slaughter for 1962 is estimated at 7.0 million head, slightly below the record 7.4 million head marketed in 1959.

Meat production for 1962 is estimated at an alltime high of 1.7 billion pounds, slightly above the previous year and almost 400 million pounds over the 1951-55 average. Beef production has declined a little since reaching a record high in 1958. However, this was more than compensated for by an upward trend in lamb production.

Production of most livestock byproducts were at record levels during most of 1961. Tallow output was 60 percent above the 1951-55 average; sheep and lamb skin production 50 percent above.

Domestic Consumption.—Less than 40 percent of New Zealand's meat production is consumed domestically, a proportion which has tended to decline since 1955 as production and exports have increased. On a per capita basis, meat consumption in New Zealand is among the highest in the world; in 1960 it reached a peak of 229 pounds. Increased consumption of mutton and lamb more than offset a decline in beef utilization.

PRODUCTION FACTORS

New Zealand's considerable potential for increased production is largely in improvements on existing farms, such as the additional use of fertilizers, clearing of brush, and better husbandry practices. It will also be influenced by development of new land through clearing and irrigation.

Irrigation

Throughout most of New Zealand the rainfall is so large and evenly distributed that there is little need for irrigation, although the large supply of melting snow water from the

TABLE 8. —Meat: Per capita consumption by type, carcass weight, average 1951-55, annual 1956-60

Year <u>1</u> /	Beef	Veal	Mutton	Lamb	Pork	Total
Average:	<u>Pounds</u>	<u>Pounds</u>	<u>Pounds</u>	<u>Pounds</u>	<u>Pounds</u>	<u>Pounds</u>
1951-55.	106	6	66	10	28	216
Annual:						
1956.	105	6	71	9	33	224
1957.	107	6	68	8	31	220
1958.	106	7	67	10	30	220
1959.	93	6	77	12	34	222
1960.	93	6	82	14	34	229

1/Year ending September 30.

Alps of the South Island is used for irrigation. Pump and spray irrigation in times of drought would materially increase forage production on lands that normally do not need additional water. Construction of irrigation facilities has greatly increased carrying capacity in parts of South Island.

Clearing New Land

Five million acres of fern scrub land and 3 million acres of native brush are gradually being cleared, and new techniques are helping to reduce the cost. Government and private enterprise are developing about 100,000 acres of this highly productive grassland each year.

Top Dressing

Dramatic production increases have occurred through the addition of both lime and phosphates to most soils of the country. The application of trace elements has also brought big increases in meat and wool production in areas where sheep did not thrive in earlier years. It has recently been found that white muscle disease is the result of selenium deficiency and may be eliminated by the application of small amounts of selenium to the soil. Much of the land in the center of the North Island has been made productive by correcting cobalt deficiency. Spectacular pasture growth from the application of molybdenum and copper has been obtained in several areas.

Top dressing with phosphates and lime may often double the carrying capacity of pastures. In the past, fertilizer application was largely limited to the most productive lands, but it is now being extended to poorer lands.

Since 1957, top dressing has been applied to about 9 million acres of grassland annually, more than half of which is now applied by plane.

Pasture Reseeding

Better strains of higher yielding grasses and legumes are being developed, and about 18 million acres of native pastures have been reseeded with improved grass and legume varieties — extensive areas of rough terrain, by airplane. It has been found that seeding of legumes has increased the nitrogen content of the soil and has thus increased the growth of grasses.

Conservation of Forage

New Zealand's farmers are increasing the preparation of silage and hay during periods of peak production in the spring and early summer for use in the winter. However, much of New Zealand's pasture lands are so rough that production of grass silage or hay is not practical. Hay is cut from high-yielding pastures in both the North and South Islands, particularly near urban areas, and is stored for feeding dairy cattle during the winter to keep yields at fairly high levels for supplying milk to the towns. However, the high cost of making hay and preparing silage discourages the production of conserved fodder. Here, also, it is often too wet to prepare good hay.

Some green pasture crops such as rape and turnips are grown for winter feed of sheep and cattle, and as summer and fall feed for fattening lambs. Often fields that are planted to these crops are later seeded to permanent grass and legume pasture. After permanent pastures have been established, farmers generally do not grow crops on the land unless the pastures deteriorate.

Control of Pests and Diseases

The high rate of stocking and the high moisture conditions under which sheep are grazed result in heavy infestation of internal parasites. These are combated by periodic drenching and rotation of pastures. Grazing cattle and sheep together is believed to help reduce the number of internal parasites in sheep; it tends to break up the life cycle of the worms, which do not affect cattle. For fly strike, which is common, sheep may be dipped or sprayed. Foot rot is common at times in some areas.

Since World War II, a determined effort has been made to eradicate rabbits which were consuming large quantities of grass and caused excessive soil erosion in some areas. Rabbit boards were organized for eradication work. Good progress has been made and the rabbit population reduced to an insignificant level in some areas, while in others eradication work is continuing.

Wild pigs, wild goats, deer, and wallabies are other pests which are being reduced in numbers by farmers and the government. Control of these animals permits more sheep and cattle to be grazed.

Government Assistance

Minimum Prices for Export Meat.—Minimum prices for meat exported from New Zealand are fixed annually by the Meat Export Prices Committee. When necessary, the Committee also fixes weekly schedules of deficiency payments. These payments are the differences between the minimum price for a class of meat as shown in the annual table or schedule and f. o. b. equivalent of the price paid to farmers.

Prices paid to producers by the export meat-packing plants are uncontrolled. However, if the price falls below the annual minimum, the farmer is paid the minimum by the plant. The plant is then reimbursed from the Meat Industry Reserve Account. Deficiency payments were made on lamb and mutton during the 1959 and 1960 seasons and on lamb during 1961.

Wool Price Support.—Since 1952, a price support program has been operated by the New Zealand Wool Commission. The aim of this program is to assure growers minimum prices for wool sold at auctions in either the United Kingdom or New Zealand. The Commission is authorized to supplement the auction price by an amount equal to the difference between that price and the support price (deficiency payments), but has preferred to support the market by purchases.

Subsidies.—The transport of lime has been subsidized for many years to encourage its wider use. Most other subsidies are for financing of disease and pest control programs which would be beyond the capabilities of individuals or smaller groups. The principal expenditure is for rabbit control. Other programs include compensation for diseased livestock and control of noxious weeds. Total subsidies during 1960 amounted to \$US4.4 million.

FOREIGN TRADE

Meat

New Zealand depends upon exports as a market for over 60 percent of its production of frozen, chilled, and cured meat. This proportion has increased significantly since 1951-55. In addition, exports of variety meats have averaged 48 million pounds for the past 5 years, 1957-61.

During 1960, meat exports (including variety meats) reached an alltime high and exceeded the 1951-55 average by 36 percent. Beef and veal exports reached a peak of 268 million pounds in 1957. Shipments in subsequent years have been smaller because of reduced supplies available for export. Foreign sales of lamb have shown significant increases, particularly in 1960 and 1961, but mutton shipments for the past 5 years have averaged about the same as 1951-55.

TABLE 9. —Meat: Exports as a percentage of production, by type,
average 1951-55, annual 1956-61

Year <u>1</u> /	Beef and veal	Mutton	Lamb	Pork	Total
Average:	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>
1951-55.	30	51	98	24	58
Annual:					
1957.	49	49	95	16	62
1958.	48	46	96	9	62
1959.	47	54	95	14	64
1960.	49	50	95	9	64
1961 <u>2</u> /	38	41	91	5	57

1/ Year ending September 30.

2/ Preliminary.

The United Kingdom has been the principal market for New Zealand meat and formerly received over 90 percent of total shipments. However, in recent years the proportion has declined and amounted to 75 percent in 1961. The decline is largely the result of increased sales of boneless beef to the United States. The United Kingdom continued to receive well over 90 percent of the lamb, mutton, pork, and variety meat exports. The shift in beef exports from the United Kingdom to the United States was primarily the result of more favorable prices obtained in the latter country.

Exports of canned meat have been small in comparison to frozen and chilled shipments. Furthermore, there has been a steady decline in foreign marketing of canned meat in recent years. Exports during 1961 amounted to less than one-third the 32 million pounds shipped in 1954.

TABLE 10. — Meat, frozen and chilled: Exports by type, product weight
average 1951-55, annual 1956-61

Year <u>1</u> /	Beef and veal	Mutton	Lamb	Pork	Variety meats	Total
Average: 1951-55.	<u>Mil. lbs.</u> 133	<u>Mil. lbs.</u> 155	<u>Mil. lbs.</u> 427	<u>Mil. lbs.</u> 27	<u>Mil. lbs.</u> 34	<u>Mil. lbs.</u> 770
Annual:						
1957.	268	123	445	13	41	890
1958.	246	110	499	8	37	900
1959.	211	180	543	14	42	990
1960.	223	170	578	8	64	1,043
1961 <u>2</u> /	167	139	572	4	56	938

1/ Year ending September 30.

2/ Preliminary.

TABLE 11. — Meat, fresh, frozen or chilled: Exports by country of destination and type,
product weight, year ending September 30, 1960 and 1961

Country of destination	Lamb	Mutton	Beef and veal	Pork	Variety meats	Total
1960:	<u>Million pounds</u>	<u>Million pounds</u>	<u>Million pounds</u>	<u>Million pounds</u>	<u>Million pounds</u>	<u>Million pounds</u>
United Kingdom	562.4	103.5	45.6	3.0	55.9	770.4
United States	4.3	4.0	128.2	---	.8	137.3
Japan	.2	35.4	7.9	---	.4	43.9
Canada	8.8	2.5	8.7	---	.1	20.1
West Indies Federation . . .	1.1	1.3	7.4	1.1	2.3	13.2
Greece	---	11.0	.7	---	---	11.7
Other countries	2.3	12.1	24.7	3.4	4.2	46.7
Total	579.1	169.8	223.2	7.5	63.7	1043.3
1961: <u>1</u> /						
United Kingdom	555.5	74.9	16.7	1.1	50.5	698.7
United States	5.0	11.0	119.0	---	.8	135.8
Japan	.1	37.6	5.5	---	.2	43.4
Canada	6.7	1.6	7.8	---	.2	16.3
West Indies Federation . . .	1.2	1.2	5.1	.9	1.1	9.5
Greece	.6	7.0	.4	---	---	8.0
Other countries	3.4	5.4	12.9	1.9	2.9	26.5
Total	572.5	138.7	167.4	3.9	55.7	938.2

1/ Preliminary.

TABLE 12. —Livestock products: Exports by type, average 1951-55, annual 1956-60

Year <u>1</u> /	Wool	Sheep and lamb skins	Cattle hides and calf skins	Tallow
	<u>Million pounds</u>	<u>Million pounds</u>	<u>Million pounds</u>	<u>Million pounds</u>
Average: 1951-55	391	50	36	94
Annual:				
1956	428	53	42	95
1957	430	51	46	107
1958	456	54	44	117
1959	528	71	43	135
1960	522	74	40	136

1/ Calendar years.

TABLE 13. —Cattle hides, calf and kip skins: Exports by country of destination, 1958-60

Country of destination	1958	1959	1960
	<u>Million pounds</u>	<u>Million pounds</u>	<u>Million pounds</u>
Italy	12.6	6.5	11.9
Australia	.5	.3	6.1
Germany, West	15.1	9.6	5.4
United Kingdom	5.2	5.1	3.4
Japan	3.4	8.6	3.3
Yugoslavia	1.3	2.3	2.6
Poland	---	2.0	2.5
Netherlands	2.8	3.5	1.6
Norway	.4	1.6	.9
United States	.5	1.4	.4
Trinidad	---	---	.3
Venezuela	---	.3	.3
Finland	.2	.4	.3
Other countries	2.4	1.1	.9
Total	44.4	42.7	39.9

TABLE 14. —Sheep and lamb skins: Exports by country of destination, 1958-60

Country of destination	1958	1959	1960
	<u>Million pounds</u>	<u>Million pounds</u>	<u>Million pounds</u>
United States	26.9	35.8	33.5
United Kingdom	12.0	13.9	15.0
Netherlands	4.6	5.8	6.9
Belgium	3.3	5.4	6.4
France	3.7	4.8	5.1
Italy	1.5	1.9	2.9
West Germany	.8	1.5	2.5
Other countries	1.2	1.6	1.9
Total	54.0	70.7	74.2

TABLE 15. —Tallow and greases: Exports by country of destination, 1958-60

Country of destination	1958	1959	1960
	<u>Million pounds</u>	<u>Million pounds</u>	<u>Million pounds</u>
United Kingdom	42	66	31
China, Mainland	1	8	29
Australia	10	---	13
India	4	5	13
Japan	15	9	8
Republic of South Africa	14	7	6
Burma	3	3	5
Ceylon	---	2	5
Kenya and Uganda	---	---	5
British West Indies	7	19	4
Rhodesia and Nyasaland	6	5	3
Mozambique	---	1	3
Netherlands	1	---	2
Other countries	14	10	9
Total	117	135	136

TABLE 16. —Wool: Exports by country of destination, 1958-60

Country of destination	1958	1959	1960
	<u>Million pounds</u>	<u>Million pounds</u>	<u>Million pounds</u>
United Kingdom	171.0	179.6	153.4
France	84.7	93.3	96.0
United States	55.8	90.4	75.3
Germany, West	26.6	34.5	36.2
Belgium	25.1	27.6	35.1
Italy	21.8	25.8	29.4
Japan	15.9	19.9	22.3
Netherlands	10.1	12.7	12.4
U. S. S. R.	3.3	.7	11.8
Poland	11.4	5.7	10.3
Czechoslovakia	5.1	7.4	8.6
China	4.8	12.0	8.2
Austria	---	---	4.5
Canada	3.1	3.7	4.3
Sweden	2.4	2.4	2.9
Portugal	2.2	2.2	2.7
Other countries	13.0	10.2	8.1
Total	456.3	528.1	521.5

Many leading agriculturists in New Zealand believe that an expansion in the beef cattle industry is preferable to further increases in sheep numbers and lamb exports. Lamb production in the United Kingdom, the leading export market, has increased markedly, and it is feared that the U.K. market for lamb will not expand enough to provide a profitable outlet for New Zealand's exportable surplus together with exports from Australia and other suppliers. On the other hand, prospects appear better for marketing larger beef supplies, since there are more alternative markets, such as North America and continental Europe.

Hides and Skins

Exports of hides and skins in 1960 were one-third higher than the 1951-55 average. West Germany and Italy replaced the United Kingdom as the principal market for cattle hides and calf and kip skins during the period 1958-60.

The United States is the principal buyer of sheep and lamb skins from New Zealand; the United Kingdom, France, and the Benelux countries take most of the remainder.

Tallow

The volume of tallow exported during 1960 was the highest since World War II and 45 percent above the 1951-55 average. The United Kingdom continued to be the principal market for New Zealand's tallow in 1960, as it was in the 2 previous years. However, that year saw a sharp increase in the quantity shipped to other destinations, particularly Mainland China, Australia, and India.

Wool

New Zealand produces wool primarily for export and in recent years over 95 percent of the production was marketed abroad. Wool exports during 1959 reached a record high, 35 percent above the 1951-55 average.

Wool is exported to a number of countries; the United Kingdom receives the largest quantity, France has been the second most important market in recent years, and the United States has occupied third place.

MARKETING FACTORS AFFECTING EXPORTS

Livestock Marketing

Farmers can market livestock in several ways, but the most common practice is to sell to slaughterhouses on the carcass weight and grade basis. In this way, the producer receives the proceeds of sale immediately after the animals are slaughtered. It is the usual practice for the buyer to come out to the farm and select lambs for slaughter. When a farmer has plenty of feed, he may feed out lambs until nearly all grade prime and produce carcasses weighing around 35 pounds. The buyer may make selections at several different times from the flock during the season to meet this objective. It is of considerable value to the farmer to have his lambs sorted by an expert even though they are usually sold on the basis of their carcass weight and grade.

The prices — a schedule price at slaughter plants — are determined each week by the operators at the plants. This schedule is based on market prices in the United Kingdom, less costs of moving the meat from New Zealand plants to the United Kingdom. The schedule takes into account the value of wool, hides, variety meats, and other byproducts that are obtained from slaughter even though settlement is made on the weight and grade of the carcass only. Schedule prices must be in line with the export value of the meat, or producers will market their livestock through a farmer cooperative or consign their meat directly to an export market.

Breeding sheep, feeder lambs, and feeder wethers are usually sold by auction at local sales yards. Such sales are on a per head basis rather than by weight. Feeder and stocker cattle also are usually sold at local sales yards, and local butchers obtain their requirements there.

New Zealand Meat Producer's Board

Although the New Zealand Meat Producer's Board has exclusive control over exports, the trade is actually carried out by private businessmen. The Board does, however, allocate shipping space, in consultation with the Overseas Shipowners' Committee, the freezing companies, and meat exporters.

Also, it determines policies concerning meat shortage and the capacity of export plants, and negotiates shipping contracts and freight rates. In addition it determines minimum price levels for meat under the producers' price-support program.

The Board also engages in sales promotion activities. Its policy is to encourage producers' cooperative marketing organizations by guaranteeing loans for financing construction of new slaughter plants.

A major function of the New Zealand Meat Producers' Board is supervision of meat grading for export. Graders are employed by each slaughter plant, but these are under the control of supervising graders who work for the Meat Board.

Carcasses are weighed and graded just before they enter the coolers. The grader places a tag on each carcass, denoting the grade and export class. The tag is also the official inspection certificate of the meat inspection service.

Export grades for lamb and mutton carcasses are "prime" and "second" quality. Mutton from carcasses which do not meet these standards may be exported as boneless mutton.

There are five general classes of export beef in New Zealand: (1) Chiller beef, (2) baby beef, (3) good average quality beef, (4) fair average quality beef, and (5) boner beef. These are somewhat different from the domestic grades.

Chiller beef is the highest quality produced in the country. Since there is no grain feeding, only a few of the best animals produced would grade equivalent to U.S. Choice. Most would fall in Good Grade, but some younger animals would be as low as Standard because of their poor condition. While most of the dairy calves are killed soon after birth and marketed as veal, a number of crossbred or straight dairy steers and heifers also go into slaughter. Therefore, considerable beef produced is from the dairy industry.

The two export grades of veal in New Zealand are Prime and Second Quality.

Wool Marketing

About 88 percent of New Zealand's wool is sold at auction in New Zealand, 8 percent is exported for sale at auction in the United Kingdom, and the balance is sold through other channels. Wool is New Zealand's main export. The country is the third largest producer and the second largest exporter of wool in the world. Only about 3 percent of the wool is consumed domestically.

New Zealand wool is well known for its uniformity and careful market preparation. A step in improving the quality of the wool is a government regulation preventing the use of marking and branding fluids that cannot be removed by scouring.

Wool is sorted at the shearing shed into age and sex classes. Fleeces are skirted, folded, rolled, and baled. Skirtings and other sorts are also baled. A typical farm would have one to three classes of lamb, yearling, ram, and ewe's wool, as well as crutchings,

skirtings, and various offsorts. The on-farm grading is usually done by an employee of the farm or by the shearing crew. Sometimes a wool broker will provide a skilled grader and will complete the entire grading on the farm. However, most of the wool is regraded in central wool warehouses, usually located in the principal cities. It is displayed for sale and sold on a commission basis. After sale, two bales (averaging about 340 pounds each) are consolidated into larger bales for export.

Throughout all months of the year, sheep are being shorn. Shearing before lambing is becoming more common. Rams and 2-year-old ewes are often shorn before the breeding season. Lambs that do not fatten off their mothers may be weaned and shorn. Sheep are usually crutched about twice a year.

EFFECT OF NEW ZEALAND'S EXPORTS ON U. S. PRODUCERS

Direct Price Competition

New Zealand will continue to offer direct competition with U. S. livestock producers. Possibilities for exports to the United States appear best for boneless beef and boneless mutton, and lamb carcasses and cuts. The U. S. farmer is in a good position to compete for the U. S. consumer meat dollar, but U. S. meat prices will have to drop materially before imports from New Zealand cease.

The United States has been experiencing a period of relatively short supplies of processing beef because farmers have been holding back cows from slaughter to increase herds. In the years immediately ahead, however, cow slaughter is expected to increase progressively; it will increase sharply when the peak of the current cattle-number cycle is reached and numbers on farms begin to recede. The corresponding increase in U. S. supplies of processing beef will limit the demand for imported boneless beef. U. S. beef imports tend to rise and decline directly with beef prices.

Exports of New Zealand lamb to the United States are limited by the extent to which U. S. lamb consumption can be increased. The long-time trend in lamb consumption has been downward and only about 4 pounds per capita have been available for the average consumer in recent years. Furthermore, most of the lamb is consumed in the large northeastern cities and on the Pacific Coast. Most people eat practically no lamb. Another factor limiting sales of New Zealand lamb is the fact that for all practical purposes it must enter the country in a frozen state. Thus it is less acceptable to the consumer than fresh domestic lamb. On the other hand, the reasonable prices for lamb delivered to the United States suggests that this trade could increase substantially. Exports to the United States are likely to be largely frozen trimmed lamb cuts in boxes, rather than whole lamb carcasses wrapped in stockinettes.

Many of the ewes slaughtered in New Zealand are very fat, and boning out these animals for shipment to the United States for the manufacturing trade has not proved practical. However, exports of lean boneless mutton to the U. S. market have increased sharply and totaled 11 million pounds in 1961.

Competition for U. S. Export Markets

In recent years, the United States has been a large net exporter of cattle hides, calf skins, variety meats, and tallows and greases. New Zealand also is large exporter of these products, and ships them largely to the same countries that are important customers for the U. S. products. As New Zealand's meat production continues to grow, the United States can expect increased competition for these export outlets.

Most of the wool imported from New Zealand by the United States is carpet wool, which enters duty free. Since little wool of this type is produced domestically, imports have little effect on prices received by U.S. producers.

As with Australian exports, the dollars earned by New Zealand from exports to the United States eventually return to the United States in mutually advantageous trade. New Zealand needs to import many kinds of industrial products, while demand for U.S. agricultural commodities is somewhat restricted.

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